Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade K			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	MO	SCI.K.2.2.A.a	Identify ways (push, pull) to cause some objects to move by touching them
Finding the Center of Gravity Using Rulers	MO	SCI.K.7.1.A.b	Conduct a simple investigation (fair test) to answer a question
Finding the Center of Gravity Using Rulers	MO	SCI.K.7.1.B.c	Measure length and mass using non-standard units
Finding the Center of Gravity Using Rulers	MO	SCI.K.7.1.C.b	Use observations to describe relationships and patterns and to make predictions to be tested
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 1			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	MO	SCI.1.7.1.A.b	Plan and conduct a simple investigation (fair test) to answer a question
Finding the Center of Gravity Using Rulers	MO	SCI.1.7.1.B.c	Measure length, mass, and temperature using standard and non-standard units
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 2			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	MO	SCI.2.7.1.A.b	Plan and conduct a simple investigation (fair test) to answer a question
Finding the Center of Gravity Using Rulers	MO	SCI.2.7.1.B.c	Measure length, mass, and temperature using standard and non-standard units
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 3			
Activity/Lesson	**State**	**Standards**	

Finding the Center of Gravity Using Rulers	MO	SCI.3.7.1.A.b	Plan and conduct a fair test to answer a question
Finding the Center of Gravity Using Plumb Lines	MO	SCI.3.7.1.A.b	Plan and conduct a fair test to answer a question
Changing the Center of Gravity Using Moment Arms	MO	SCI.3.7.1.A.b	Plan and conduct a fair test to answer a question
Changing the Center of Gravity Using Moment Arms	MO	SCI.3.7.1.B.c	Measure length to the nearest centimeter, mass using grams, temperature using degrees Celsius, volume using liters
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 4			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	MO	SCI.4.7.1.A.a.	Formulate testable questions and explanations (hypotheses)
Finding the Center of Gravity Using Rulers	MO	SCI.4.7.1.A.c.	Conduct a fair test to answer a question
Finding the Center of Gravity Using Plumb Lines	MO	SCI.4.7.1.A.a.	Formulate testable questions and explanations (hypotheses)
Finding the Center of Gravity Using Plumb Lines	MO	SCI.4.7.1.A.c.	Conduct a fair test to answer a question
Changing the Center of Gravity Using Moment Arms	MO	SCI.4.7.1.A.a.	Formulate testable questions and explanations (hypotheses)
Changing the Center of Gravity Using Moment Arms	MO	SCI.4.7.1.A.c.	Conduct a fair test to answer a question
Changing the Center of Gravity Using Moment Arms	MO	SCI.4.7.1.B.c.	Measure length to the nearest centimeter, mass using grams, temperature using degrees Celsius, volume to the nearest milliliter, force/weight to the nearest Newton
Changing the Center of Gravity Using Moment Arms	MO	SCI.4.7.1.C.d.	Analyze whether evidence supports proposed explanations
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 5			
Activity/Lesson	**State**	**Standards**	

Jet Propulsion	MO	SCI.5.7.1.A.a	Formulate testable questions and explanations (hypotheses)
Jet Propulsion	MO	SCI.5.8.3.A.a	Identify a question that was asked, or could be asked, or a problem that needed to be solved when given a brief scenario (fiction or nonfiction of people working alone or in groups solving everyday problems or learning through discovery)
Vectoring	MO	SCI.5.7.1.A.a	Formulate testable questions and explanations (hypotheses)
Vectoring	MO	SCI.5.7.1.A.c	Conduct a fair test to answer a question
Vectoring	MO	SCI.5.7.1.C.c	Evaluate the reasonableness of an explanation
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	MO	SCI.6.7.1.A.a	Formulate testable questions and hypotheses
Vectoring	MO	SCI.6.7.1.A.a	Formulate testable questions and hypotheses
Vectoring	MO	SCI.6.7.1.A.c	Design and conduct a valid experiment
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	MO	SCI.7.7.1.A.a	Formulate testable questions and hypotheses
Vectoring	MO	SCI.7.7.1.A.a	Formulate testable questions and hypotheses
Vectoring	MO	SCI.7.7.1.A.c	Design and conduct a valid experiment
Vectoring	MO	SCI.7.7.1.B.b	Determine the appropriate tools and techniques to collect data
Vectoring	MO	SCI.7.7.1.B.f	Judge whether measurements and computation of quantities are reasonable
Vectoring	MO	SCI.7.7.1.C.d	Evaluate the reasonableness of an explanation (conclusion)
Exploring the Extreme			
2008 Science			
Grade and Course Level Expectations			
Missouri Science			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	MO	SCI.8.7.1.A.a	Formulate testable questions and hypotheses

Jet Propulsion	MO	SCI.8.8.2.B.b	Describe explanations have changed over time as a result of new evidence
Vectoring	MO	SCI.8.7.1.A.a	Formulate testable questions and hypotheses
Vectoring	MO	SCI.8.7.1.A.c	Design and conduct a valid experiment
Vectoring	MO	SCI.8.7.1.B.b	Determine the appropriate tools and techniques to collect data
Vectoring	MO	SCI.8.7.1.B.f	Judge whether measurements and computation of quantities are reasonable
Center of Gravity, Pitch, Yaw	MO	SCI.8.7.1.A.e	Recognize that different kinds of questions suggest different kinds of scientific investigations (e.g., some involve observing and describing objects organisms, or events; some involve collecting specimens; some involve experiments; some involve making observations in nature; some involve discovery of new objects and phenomena; some involve making models)